ABSTRACT OF THE DISCLOSURE

The terminal voltages of respective phase coils of a steering shaft driving motor constituted by a three-phase brushless motor are separately detected. When the terminal voltages detected at at least three different conducting terminals u, v, and w are made Vu, Vv, and Vw, respectively, and the values when those detected values Vu, Vv, and Vw are arranged in order from largest to smallest voltage are made V_1 , V_2 , and V_3 , respectively, provided that $V_1 \ge V_2 \ge V_3$, a calculation is performed to determine if $V_1 + V_3$ coincides with $2*V_2$ within a predetermined allowable range, and a failure is determined based on results obtained from such a calculation.

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